

ASSIGNMENT 1

Textbook Assignment: "Fundamentals," chapter 1, pages 1-1 through 1-13; and "Systems Equipment Configurations," chapter 2, pages 2-1 through 2-27.

- 1-1. What type of equipment is used to coordinate the activities of fleet units by linking them with each other and shore stations?
1. Radio
 2. Weather
 3. Radar
 4. Navigation
- 1-2. Radio is the transmission and reception of electronic impulses or signals through space by means of what type of waves?
1. Pulsed
 2. Phased
 3. Electromagnetic
 4. Electrostatic
- 1-3. Who is ultimately responsible for safety?
1. CO
 2. CMC
 3. LCPO
 4. Everyone
- 1-4. What are the basic requirements of a communications system?
1. Transmitter and receiver
 2. Teletype and converter
 3. Transmitter and handset
 4. Receiver and handset
- 1-5. AN/UCC-1, AN/URA-17, and CV-2460 are examples of what type of shipboard equipment?
1. Ancillary
 2. Auxillary
 3. Special
 4. Terminal
- 1-6. For efficient transmission, which of the following frequency bands require(s) high power and long antennas?
1. ELF only
 2. VLF only
 3. LF only
 4. ELF, VLF, and LF
- 1-7. Which of the following frequency bands has limited naval use?
1. HF
 2. MF
 3. UHF
 4. VHF
- 1-8. What does the abbreviation "los" commonly mean?
1. Loss-of-signal
 2. Line-of-sight
 3. Loss-of-sight
 4. Line-of-signal
- 1-9. The super-high-frequency band is used extensively in what of communications?
1. Teletype
 2. Repeater
 3. Microwave
 4. Computer
- 1-10. The emission class of an rf transmitter is based on what characteristic?
1. Modulation
 2. Power
 3. Sensitivity
 4. Frequency
- 1-11. An FM signal should remain constant in (a) what characteristic and change only in (b) what characteristic?
1. (a) Frequency (b) amplitude
 2. (a) Frequency (b) modulation
 3. (a) Amplitude (b) frequency
 4. (a) Amplitude (b) modulation
- 1-12. What type of modulation is especially suited for use in time-division multiplexing?
1. Amplitude
 2. Frequency
 3. Phase
 4. Pulse

- 1-13 . For modern communication needs, CW is not a preferred method. Why is this true?
1. CW is slow
 2. CW is complicated
 3. CW is expensive
 4. CW is noisy
- 1-14 . In an FM transmitter, the audio signal shifts the carrier frequency in what network?
1. Audio-shift
 2. Phase-shift
 3. carrier-shift
 4. Band-shift
- 1-15. In a ssb transmitter the carrier is removed to concentrate the power in the sideband(s) .
1. True
 2. False
- 1-16. Which of the four receiver functions involves extraction of the modulation from the rf signal?
1. Detection
 2. Reception
 3. Reproduction
 4. Selection
- 1-17 . Which of the four receiver characteristics require compromise because of bandpass requirements ?
1. Selectivity and noise
 2. Selectivity and fidelity
 3. Noise and fidelity
 4. Noise and sensitivity
- 1-18. What term is used to describe receiver amplification?
1. Fidelity
 2. Noise
 3. Gain
 4. Power
- 1-19. The term "dBm" is based on what standard reference level?
1. 1 watt
 2. 1 volt
 3. 1 milliwatt
 4. 1 millivolt
- 1-20. Normal power out is 100 watts. During PMS, you discover that power out has dropped by 3dB. What is the new power out?
1. 97 watts
 2. 70 watts
 3. 50 watts
 4. 3 watts
- 1-21. How many radio set controls can be paralleled to one transmitter/ receiver group?
1. One
 2. Two
 3. Three
 4. Four
- 1-22 . To transfer control of switched circuits to another transmitter or receiver switchboard, you should use what switch position?
1. Off
 2. X
 3. Five
 4. Six
- 1-23. Which of the following terms is used for a machine that operates as a single-phase transformer?
1. Servo
 2. Synchro
 3. Gyro
 4. Compass
- 1-24. When you use subdivisions to assign reference designators to equipment, what is the designator of the (a) largest subdivision and (b) smallest subdivision?
1. (a) System (b) set
 2. (a) Set (b) unit
 3. (a) System (b) part
 4. (a) Unit (b) assembly
- 1-25. Extremely-low-frequency transmission is primarily directed at which of the following users?
1. Aircraft
 2. Shore installations
 3. Submarines
 4. Surface ships

- 1-26. The very-low-frequency receive system is designed to receive what types of signals?
1. AM and FM
 2. FSK and CW
 3. FSK and ICW
 4. SSB and FSK
- 1-27. The AN/FRT-72 (if) transmitter is used to provide (a) how many channels of frequency-division multiplex rtty traffic over (b) what type of fleet broadcast system at (c) what type of power?
1. (a) Eight (b) multichannel (c) high
 2. (a) Eight (b) singlechannel (c) high
 3. (a) Four (b) multichannel (c) low
 4. (a) Four (b) multichannel (c) high
- 1-28. HF communications from shore-based transmitters to ships at sea using frequency and space diversity is an example of which of the following types of systems?
1. Fleet broadcast
 2. Point-to-point
 3. Ground-to-air
 4. ship-to-shore
- 1-29. Which one of the following equipment would you use to match a transmitter's output impedance to an antenna's input impedance?
1. CV-2460
 2. SB-988/SRT
 3. AN/UCC-1
 4. AN/URA-38
- 1-30. The AN/VRC-80 is not just a vhf transmitter or receiver. What is the name given to a piece of equipment that performs both functions?
1. Transducer
 2. Multiplexer
 3. Retransmitted
 4. Transceiver
- 1-31. During UHF secure voice transmission, the operator uses a secure voice remote phone unit. What is the common term for this unit?
1. RPS
 2. RPU
 3. SVP
 4. SPU
- 1-32. which of the following combinations of radio-relay systems provides (a) one-way communications and (b) two-way communications?
1. (a) Simplex (b) multiplex
 2. (a) Duplex (b) multiplex
 3. (a) Simplex (b) duplex
 4. (a) Duplex (b) simplex
- 1-33. What term is normally used for microwave transmitter input signal?
1. Baseband signal
 2. Emphasis signal
 3. Insertion signal
 4. Linear signal
- 1-34. In a microwave transmitter, the linearize couples a portion of the output power back to the klystron. This allows for modulation densities as high as 1200 channels and compensates for what klystron deficiency?
1. Nonlinearity
 2. Oscillations
 3. Overheating
 4. Selectivity
- 1-35. In a typical microwave receiver, what is the standard intermediate frequency?
1. 40 MHz
 2. 50 MHz
 3. 60 MHz
 4. 70 MHz
- 1-36. Which of the following methods are usually used for microwave communications?
1. Los and troposcatter
 2. Los and satcom
 3. Troposcatter and satcom
 4. Troposcatter and shortwave

- 1-37. By which of the following methods can you increase the maximum number of intelligible signals transmitted on a single path?
1. Modulation
 2. Single audio mixing
 3. Multiplexing
 4. Single signal splitting
- 1-38. Which of the following communications methods involves subdividing a channel into smaller segments of equal size and placing a signal in each subchannel?
1. FDM
 2. TDM
 3. DFM
 4. DTM
- 1-39. Which of the following requirements does SAS satisfy?
1. Nonsecure voice communications
 2. Secure voice communications
 3. Voice signal switching
 4. All of the above
- 1-40. How many crypto and plain subsystems are used within SAS?
1. Five
 2. Two
 3. Three
 4. Four
- 1-41. One mode of teletypewriter operation is the synchronous mode. What other mode is used for basic teletypewriter operation?
1. Asynchronous
 2. Bisynchronous
 3. Nonsynchronous
 4. Trisynchronous
- 1-42. What is the name of the five-unit code that includes mark and space signals and is used in teletypewriter operation?
1. Baud
 2. Baudot
 3. ASCII
 4. Morse
- 1-43. Which of the following problems is reduced by not using start and stop signals in the synchronous teletypewriter mode?
1. Converted signal
 2. Delayed signal
 3. Distorted signal
 4. Lost signal
- 1-44. Which of the following terms actually pertains only to modulation rate?
1. Baud
 2. Words per minute
 3. Bites per second
 4. Words per second
- 1-45. In neutral tty operation, current flow and no current flow represent the mark and space conditions. In polar tty operation what is the condition of the line current?
1. It is always absent
 2. It is always positive
 3. It is always negative
 4. It is always present
- 1-46. What device is used to change tty dc pulses into mark and space signals to modulate the transmitter carrier wave?
1. Detector
 2. Keyer
 3. Modulator
 4. Transformer
- 1-47. After the tty signal is received, what device(s) must be used to change the signal back to dc pulses?
1. Convertor
 2. Receiver
 3. Both 1 and 2 above
 4. Keyer
- 1-48. The Navy's two basic RATT systems are AFTS and RFCS. What is the RFCS system commonly called?
1. ASK
 2. FSK
 3. PSK
 4. RSK

- 1-49. What device provides looping current for the tty?
1. A solid state power supply
 2. A generator
 3. An alternator
 4. The tty battery
- 1-50. What is/are used to interconnect all the tty equipment in any configuration needed?
1. Multiple cabling
 2. Wire runs
 3. TTY panel
 4. Switching resistors
- 1-51. Which of the following methods is/are used to reduce fading and interference in long-range communications?
1. Frequency diversity
 2. Space diversity
 3. Both 1 and 2 above
 4. Ionospheric inversion
- 1-52. What type of frequency diversity is used for multichannel broadcasts?
1. Signal
 2. Space
 3. Triple
 4. Tone
- 1-53. During unpatching, pulling which plug from its tty panel jack first will produce a dangerous dc voltage on the exposed plug?
1. Looping
 2. Set
- 1-54. How many rotary switch positions will you find on a remote transmitter control unit?
1. One
 2. Two
 3. Three
 4. Four
- 1-55. In AFTS, to what does the term "half-duplex" refer?
1. "Send only"
 2. "Receive only"
 3. "Send or receive"
 4. All of the above